

Please replace the paragraph beginning at line 25 on page 9 through line 5 on page 10 of the specification with the following rewritten paragraph:

At 35°C, 45 μ l of H₂O₂ (50%) were added to a solution of 325 μ l of α -terpinene and 48.5 mg of Na₂MoO₄·2H₂O in 4 ml of methanol. Five further 45 μ l portions of H₂O₂ (50%) were added to this mixture as soon as the red-colored reaction mixture turned yellow again. After 1.5 hours, the reaction mixture was analyzed by means of HPLC. Analysis gave a quantitative formation of ascaridol.

IN THE CLAIMS:

Please amend claims 1 to 3 as follows:

1. (Amended) A process for the oxidation of organic substrates by means of ¹O₂, which comprises adding 30-70% strength H₂O₂ to hydrophobic organic substrates which react with ¹O₂ in an organic solvent in the presence of a homogeneous catalyst, whereupon, following the catalytic decomposition of H₂O₂ to give water and ¹O₂, oxidation to give the corresponding oxidation products takes place.

2. (Amended) The process as claimed in claim 1, wherein the substrates which react with ¹O₂ used are olefins which contain 1 to 10 C=C double bonds; C₆-C₅₀ phenols, polyalkylbenzenes, polyalkoxybenzenes; polycyclic aromatics having 2 to 10 aromatic rings; alkyl sulfides, alkenyl sulfides, aryl sulfides which are either mono- or disubstituted on the sulfur atom, and C₄-C₆₀ heterocycles having an O, N or S atom in the ring, which may be unsubstituted or may be mono- or polysubstituted by halogens, cyanide, carbonyl groups, hydroxyl groups, C₁-C₅₀ alkoxy groups, C₁-C₅₀ alkyl groups, C₆-C₅₀ aryl groups, C₂-C₅₀ alkenyl groups, C₂-C₅₀ alkynyl groups, carboxylic acid groups, ester groups, amide groups, amino groups, nitro groups, silyl groups, silyloxy groups, sulfone groups, sulfoxide groups or by one or more NR¹R² radicals in which R¹ or R² may be identical or different and are H; C₁-C₅₀ alkyl; formyl; C₂-C₅₀ acyl, C₇-C₅₀ benzoyl, where R¹ and R² may also together form a ring.

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3. (Amended) The process as claimed in claim 1, wherein the solvent used is C₁-C₈-alcohols, formamide, N-methylformamide, dimethylformamide, sulfolane or propylene carbonate.

Please add the following new claims:

9. (New) A process for the oxidation of organic substrates by means of ¹O₂, which consists essentially of adding 30-70% strength H₂O₂ to hydrophobic organic substrates which react with ¹O₂ in an organic solvent in the presence of a homogeneous catalyst, whereupon, following the catalytic decomposition of H₂O₂ to give water and ¹O₂, oxidation to give the corresponding oxidation products takes place.

10. (New) The process as claimed in claim 9, wherein, following the reaction of the hydrophobic organic substrates which react with ¹O₂ in a monohydric C₁-C₈ alcohol as solvent in the presence of a molybdate catalyst with 30-70% strength H₂O₂ to give the corresponding oxidation products, the removal and recycling of the precipitated-out catalyst when the reaction is complete is carried out by simple centrifugation or filtration.

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11. (New) The process of claim 7 wherein the reaction temperature is 15 to 35°C.
